DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-020793
Date Inspected: 18-Nov-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC)

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Li Yang and Zhu Zhong Hai

Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Trial Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 11BW (Plumbness and Flatness after Heat Straightening)

This QA Inspector performed Dimension Control Inspection along with ABF QA Inspector for measuring plumbness and flatness on the deck panel to deck panel diaphragm between U-Rib at 1st location (reference of numbering taken from counter weight side towards cross beam side) on Segment 11BW at Panel Point (PP) 99 after heat straightening.
The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 11DW (Floor Beam Flatness after Heat Straightening)

This QA Inspector performed Floor Beam flatness check along with Caltrans QA Inspector Mr. Murugan Manikandan for the Segment 11DW from Panel Point (PP) 105 at the following locations after heat straightening:

The Floor Beam flatness was verified and measured at the Cross Beam (CB) side at Panel Point (PP) 105. The QA Inspector measured the Floor Beam flatness using 1500mm straight edge.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 11BE (Floor Beam Flatness after Heat Straightening)

This QA Inspector performed Floor Beam flatness check along with Caltrans QA Inspector Mr. Murugan Manikandan for the Segment 11BE from Panel Point (PP) 98 and PP 99 at the following locations after heat straightening:

The Floor Beam flatness was verified and measured at the Cross Beam (CB) side and Bike Path (BK) side at Panel Point (PP) 98 and PP 99. The QA Inspector measured the Floor Beam flatness using 1500mm straight edge.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 11CE (Floor Beam Flatness after Heat Straightening)

This QA Inspector performed Floor Beam flatness check along with Caltrans QA Inspector Mr. Murugan Manikandan for the Segment 11CE from Panel Point (PP) 101, PP 102 and 103 at the following locations after heat straightening:

The Floor Beam flatness was verified and measured at the Cross Beam (CB) side and Bike Path (BK) side at Panel Point (PP) 101, PP 102 and PP 103. The QA Inspector measured the Floor Beam flatness using 1500mm straight edge.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 11CE to Segment 11DE (Transverse Splice at Edge Panel)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW11A-001. The welder identification was 040320 and was observed welding in the 3G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-3G(3F)-Repair-FCM-1. The piece mark was identified as the edge panel splice weld, Cross Beam side. ZPMC performed repair welding in accordance with Critical Welding Report B-CWR-17232.

Segment 11CE (Corner Assembly hold back weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA087-006. The welder identification was

067752 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-Repair-FCM-1. The piece mark was identified as Edge Panel to Side Panel Corner Assembly hold back weld at work point E6. ZPMC performed repair welding in accordance with Welding Repair Report B-WR-17233.

Segment 11DE (Corner Assembly hold back weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg072-044. The welder identification was 067752 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-Repair-FCM-1. The piece mark was identified as Edge Panel to Side Panel Corner Assembly hold back weld at work point E6. ZPMC performed repair welding in accordance with Welding Repair Report B-WR-17233.

Segment 11CE to Segment 11DE (Transverse Splice at Side Panel)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE11C-002. The welder identification was 040320 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-Repair-FCM-1. The piece mark was identified as the Side Panel, Counter Weight side. ZPMC performed repair welding in accordance with Welding Repair Report B-WR-17231.

Segment 11CE to Segment 11DE (Transverse Splice at Side Panel)

This QA Inspector observed the visual discontinuities repair welding by Shielded Metal Arc Welding (SMAW) process on a Bottom Panel T-Ribs at hold back area. The welder identification was 044515 and was observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-345-SMAW-2G(2F)-Repair-FCM-1.

Please reference the pictures attached for more comprehensive details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

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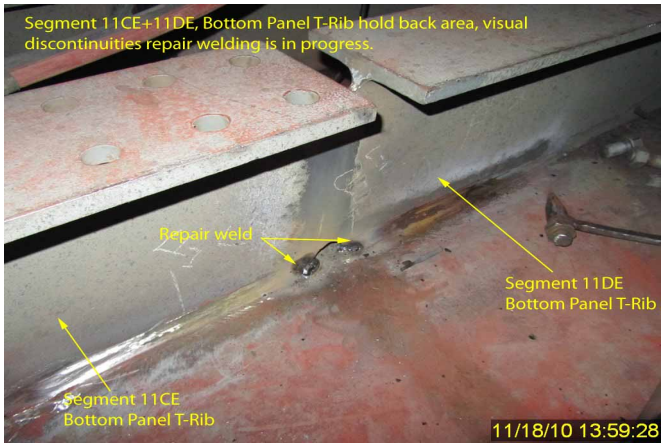

Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Dsouza,Christopher	QA Reviewer